

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P937602

Luminaire Tested: SQ4-FB-100U-075D-B40-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

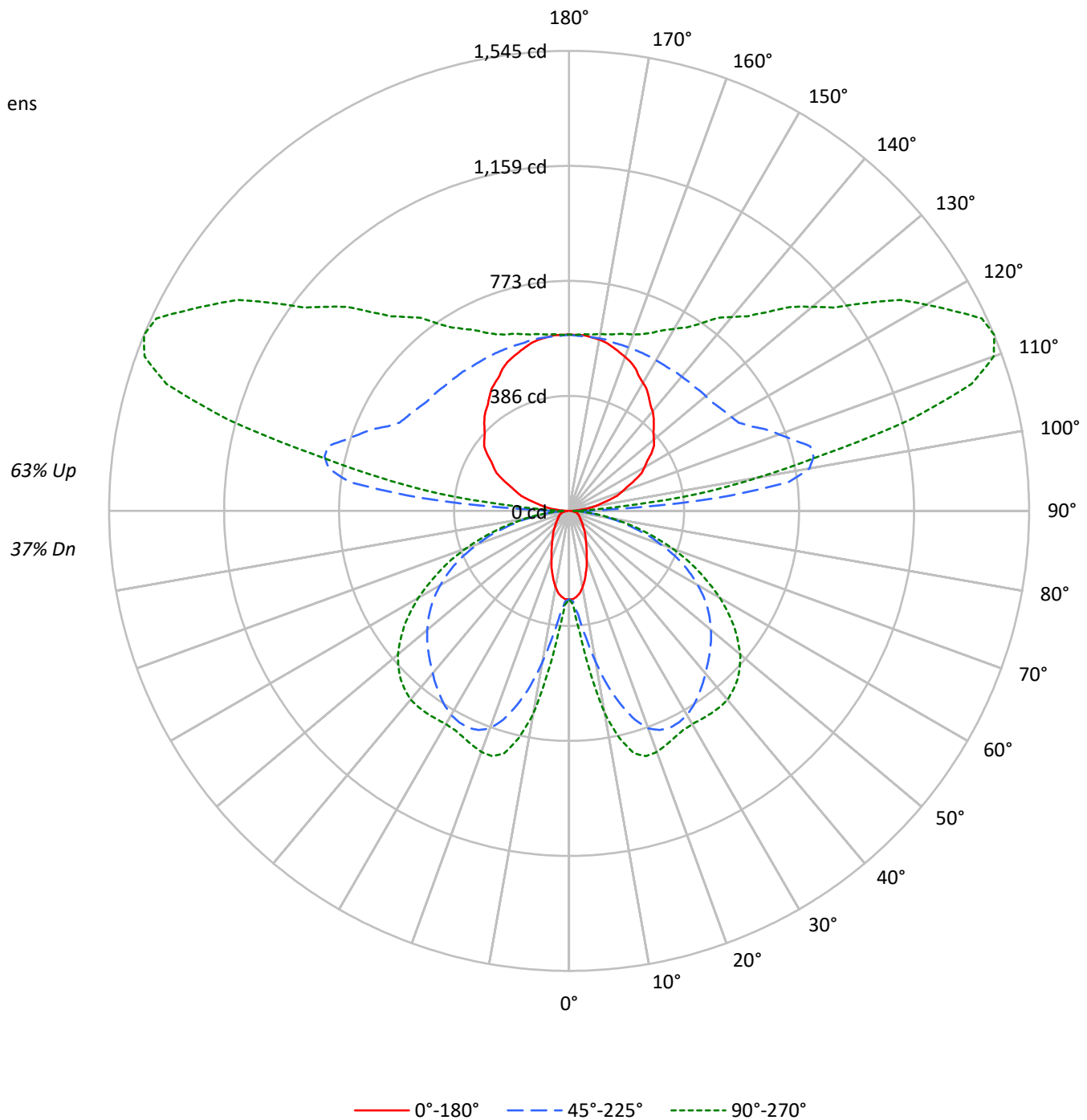
Test Method: LM-79-2019  
Report Number: P937602  
REPORT IS A COMBINATION OF REPORTS P933566 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-075D-B40-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6136.7 lumens  
Efficiency: N/A  
Efficacy: 124.7 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 49.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				20	
RC	80				70				50				30				10				0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37				37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31				31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25				25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21				21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17				17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15				15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13				13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11				11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10				10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9				9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8				8

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2756	2756	2756
5°	2690	3183	3704
10°	2437	4636	6141
15°	2069	6053	7416
20°	1682	7009	7558
25°	1402	7330	7404
30°	1180	7370	7390
35°	1042	7242	7581
40°	906	7077	7779
45°	819	6954	7809
50°	750	6842	7680
55°	715	6682	7340
60°	731	6380	6802
65°	756	5925	6064
70°	800	5156	5123
75°	876	4193	3998
80°	941	2899	2694
85°	787	1529	1379

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7809 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.4	0.6
10°-20°	170.3	2.8
20°-30°	297.8	4.9
30°-40°	383.4	6.2
40°-50°	428.2	7.0
50°-60°	410.2	6.7
60°-70°	325.1	5.3
70°-80°	191.1	3.1
80°-90°	55.4	0.9
90°-100°	288.5	4.7
100°-110°	758.5	12.4
110°-120°	786.5	12.8
120°-130°	630.8	10.3
130°-140°	495.0	8.1
140°-150°	379.9	6.2
150°-160°	273.6	4.5
160°-170°	167.4	2.7
170°-180°	56.6	0.9
0°-30°	506.5	8.3
0°-40°	889.9	14.5
0°-60°	1728.3	28.2
0°-90°	2299.9	37.5
90°-120°	1833.5	29.9
90°-150°	3339.2	54.4
90°-180°	3837.0	62.5
0°-180°	6136.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	297	297	297	297	297	
5°	289	310	350	395	410	27
15°	217	400	674	818	843	60
25°	138	454	803	838	839	64
35°	94	434	756	799	831	58
45°	64	346	668	766	800	50
55°	46	220	567	659	677	42
65°	36	116	421	474	480	36
75°	27	72	231	254	255	28
85°	10	22	57	63	64	10
90°	4	11	30	15	15	4
95°	38	149	497	256	174	42
105°	137	207	839	1273	1188	145
115°	243	295	672	1340	1529	240
125°	338	379	611	1032	1218	300
135°	402	443	592	833	945	311
145°	467	496	584	711	767	292
155°	528	542	584	642	660	242
165°	569	577	584	607	615	161
175°	592	592	588	596	596	56
180°	592	592	592	592	592	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	297.0	297.0	297.0	297.0	297.0	297.0	297.0	297.0	297.0	297.0	297.0
2.5°	297.0	297.0	298.9	299.9	301.8	302.7	304.6	306.6	312.3	313.2	315.2
5°	289.4	293.2	305.6	310.4	323.7	341.9	349.5	361.9	387.7	395.4	400.1
7.5°	277.9	286.5	317.1	324.7	358.1	405.9	425.9	452.7	493.7	513.8	530.0
10°	259.8	277.9	332.3	350.5	404.9	477.5	514.7	552.0	614.1	641.8	652.3
12.5°	239.7	269.3	348.6	373.4	451.7	557.7	602.6	643.7	714.3	751.6	757.3
15°	216.8	256.9	363.9	400.1	501.4	624.6	674.2	724.8	790.7	817.5	824.2
17.5°	196.7	247.3	378.2	416.4	539.6	684.7	735.4	777.4	830.8	849.0	853.8
20°	171.9	232.1	387.7	437.4	579.7	728.7	777.4	809.8	846.1	857.6	859.5
22.5°	153.8	215.8	393.5	445.0	606.4	755.4	796.5	822.3	847.1	850.9	851.9
25°	138.5	197.7	392.5	453.6	629.3	771.6	803.2	822.3	836.6	838.5	838.5
27.5°	124.2	177.6	388.7	455.5	646.5	775.5	800.3	813.7	820.3	824.2	824.2
30°	111.7	158.5	379.1	451.7	654.2	771.6	791.7	798.4	805.1	810.8	813.7
32.5°	102.2	140.4	364.8	444.1	655.1	762.1	776.4	780.2	789.8	803.2	807.9
35°	93.6	122.2	348.6	433.6	649.4	746.8	756.4	760.2	779.3	799.3	806.0
37.5°	85.0	108.9	327.6	415.4	640.8	728.7	735.4	742.0	771.6	795.5	803.2
40°	76.4	97.4	302.7	395.4	627.4	706.7	712.4	722.9	762.1	789.8	797.4
42.5°	69.7	87.9	276.0	374.4	610.2	681.9	690.5	705.7	750.6	780.2	788.8
45°	64.0	78.3	247.3	345.7	588.3	656.1	668.5	689.5	737.3	765.9	773.6
47.5°	58.3	71.6	217.7	316.1	564.4	630.3	646.5	670.4	719.1	746.8	753.5
50°	53.5	64.9	188.1	284.6	538.6	602.6	621.7	646.5	696.2	722.0	730.6
52.5°	49.7	59.2	160.4	253.1	509.0	574.0	595.9	621.7	668.5	693.3	699.1
55°	45.8	54.4	136.6	219.6	478.5	543.4	567.3	592.1	637.9	658.9	662.8
57.5°	43.9	50.6	116.5	188.1	446.0	509.0	535.8	558.7	601.6	617.9	621.7
60°	41.1	47.8	101.2	161.4	410.6	476.5	499.5	522.4	558.7	572.0	574.9
62.5°	38.2	45.8	89.8	135.6	374.4	438.3	461.3	482.3	512.8	522.4	526.2
65°	36.3	43.9	81.2	116.5	337.1	398.2	421.2	439.3	464.1	473.7	475.6
67.5°	34.4	42.0	74.5	100.3	299.9	358.1	375.3	392.5	411.6	421.2	422.1
70°	31.5	40.1	68.8	88.8	261.7	312.3	326.6	344.8	360.0	364.8	367.7
72.5°	29.6	37.2	64.9	80.2	222.5	268.4	281.7	292.2	305.6	310.4	310.4
75°	26.7	33.4	61.1	71.6	182.4	219.6	231.1	241.6	252.1	254.0	251.2
77.5°	23.9	29.6	52.5	60.2	142.3	173.8	183.4	189.1	197.7	199.6	200.5
80°	20.1	25.8	41.1	46.8	103.1	128.0	134.7	139.4	147.1	147.1	149.0
82.5°	15.3	20.1	29.6	33.4	69.7	87.9	93.6	96.5	101.2	101.2	101.2
85°	9.5	12.4	19.1	22.0	42.0	53.5	57.3	58.3	62.1	63.0	63.0
87.5°	4.8	6.7	12.4	13.4	22.0	27.7	27.7	29.6	29.6	28.6	27.7
90°	4.0	7.2	10.3	11.1	17.5	26.0	30.2	26.8	20.2	15.1	15.1
92.5°	15.9	42.9	69.9	76.7	107.8	149.3	170.0	149.0	107.0	75.4	72.5
95°	38.1	87.6	137.0	149.4	265.2	419.6	496.9	443.4	336.4	256.2	247.2
97.5°	65.9	109.5	153.2	164.1	357.3	614.8	743.6	709.8	642.1	591.4	574.1
100°	87.4	126.9	166.5	176.4	390.8	676.6	819.5	822.0	826.8	830.6	809.9
102.5°	105.6	142.6	179.4	188.7	406.2	696.0	841.0	884.0	970.2	1034.7	1017.1
105°	136.7	167.9	199.1	206.9	417.5	698.2	838.6	935.1	1128.2	1273.1	1263.7
107.5°	168.5	197.6	226.7	234.0	419.6	667.1	790.8	925.6	1195.0	1397.1	1399.4
110°	189.9	216.2	242.5	249.1	416.4	639.6	751.1	901.7	1202.9	1428.8	1438.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	211.0	236.0	261.0	267.3	416.6	615.5	715.0	869.1	1177.3	1408.5	1423.7
115°	242.7	265.8	288.9	294.7	420.4	588.0	671.7	820.2	1117.2	1339.9	1360.9
117.5°	274.1	295.1	316.1	321.4	428.2	570.7	642.0	775.9	1043.9	1244.9	1268.2
120°	292.3	312.1	331.9	336.8	434.5	564.9	630.0	752.4	997.3	1181.0	1203.7
122.5°	310.3	330.2	350.2	355.2	443.7	561.8	620.8	731.1	951.6	1117.0	1139.3
125°	337.7	355.8	374.0	378.6	456.0	559.2	610.9	704.6	891.9	1032.4	1053.0
127.5°	359.8	378.2	396.6	401.2	468.3	557.8	602.6	683.0	843.8	964.5	981.8
130°	371.8	391.6	411.3	416.3	477.3	558.8	599.5	671.1	814.2	921.6	937.6
132.5°	384.1	403.9	423.6	428.6	484.6	559.2	596.6	660.7	788.8	885.0	899.4
135°	402.4	420.4	438.4	442.9	492.6	558.8	591.9	645.6	752.8	833.3	845.7
137.5°	421.1	438.9	456.7	461.2	504.4	562.2	591.0	636.4	727.1	795.2	805.4
140°	436.5	453.0	469.4	473.5	511.8	562.8	588.3	627.4	705.8	764.7	774.1
142.5°	448.5	463.7	478.8	482.7	517.9	564.8	588.3	622.7	691.5	743.2	751.4
145°	466.7	480.0	493.2	496.5	525.8	564.9	584.4	612.5	668.8	711.0	717.2
147.5°	485.0	497.9	510.7	514.0	537.5	568.7	584.4	606.5	650.8	684.1	689.2
150°	496.9	508.5	520.2	523.1	543.6	570.8	584.4	603.1	640.4	668.5	672.6
152.5°	509.2	518.0	526.9	529.1	547.5	572.0	584.4	600.3	632.2	656.2	659.3
155°	527.5	534.0	540.6	542.2	556.3	575.0	584.4	597.1	622.5	641.5	643.6
157.5°	541.0	547.4	553.7	555.3	565.0	577.9	584.4	594.2	614.0	628.8	630.2
160°	550.2	555.1	560.0	561.3	569.0	579.2	584.4	592.9	609.8	622.5	623.3
162.5°	559.2	563.0	566.7	567.7	573.2	580.6	584.4	591.5	605.8	616.5	617.2
165°	569.2	572.5	575.9	576.7	579.3	582.6	584.4	589.5	599.7	607.4	608.2
167.5°	578.3	580.0	581.6	582.0	584.1	586.8	588.3	591.6	598.3	603.4	603.8
170°	584.4	585.9	587.5	587.9	588.0	588.2	588.3	591.6	598.3	603.4	603.4
172.5°	587.5	587.9	588.2	588.3	588.3	588.3	588.3	591.0	596.2	600.2	599.9
175°	591.9	591.9	591.9	591.9	590.7	589.0	588.3	590.0	593.3	595.8	595.8
177.5°	591.9	591.9	591.9	591.9	591.0	589.7	589.0	590.4	593.1	595.1	594.7
180°	591.9	591.9	591.9	591.9	591.9	591.9	591.9	591.9	591.9	591.9	591.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	297.0	297.0
2.5°	317.1	315.2
5°	407.8	409.7
7.5°	549.1	548.2
10°	682.8	691.4
12.5°	780.2	782.1
15°	839.4	843.3
17.5°	862.4	863.3
20°	863.3	861.4
22.5°	852.8	850.9
25°	840.4	839.4
27.5°	828.9	829.9
30°	824.2	827.0
32.5°	824.2	828.9
35°	826.1	830.8
37.5°	825.1	830.8
40°	821.3	828.0
42.5°	810.8	815.6
45°	794.6	800.3
47.5°	773.6	777.4
50°	746.8	750.6
52.5°	713.4	714.3
55°	673.3	677.1
57.5°	630.3	631.3
60°	582.6	585.4
62.5°	531.9	531.9
65°	478.5	480.4
67.5°	423.1	427.8
70°	366.7	367.7
72.5°	311.3	311.3
75°	254.0	255.0
77.5°	199.6	199.6
80°	148.0	149.0
82.5°	102.2	104.1
85°	64.0	64.0
87.5°	29.6	26.7
90°	15.1	15.1
92.5°	60.5	48.4
95°	210.8	174.4
97.5°	504.9	435.8
100°	727.5	645.1
102.5°	946.5	875.9
105°	1225.6	1187.7
107.5°	1408.5	1417.7
110°	1478.2	1517.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1484.5	1545.2
115°	1445.1	1529.3
117.5°	1361.6	1455.0
120°	1294.4	1385.1
122.5°	1228.9	1318.4
125°	1135.4	1217.9
127.5°	1051.5	1121.0
130°	1001.9	1066.2
132.5°	956.9	1014.5
135°	895.3	945.0
137.5°	846.0	886.6
140°	812.1	850.0
142.5°	784.1	816.7
145°	741.9	766.7
147.5°	709.7	730.1
150°	689.2	705.8
152.5°	671.8	684.4
155°	651.9	660.2
157.5°	636.1	642.0
160°	626.7	630.0
162.5°	620.5	623.6
165°	611.6	614.9
167.5°	605.1	606.5
170°	603.4	603.4
172.5°	598.7	597.4
175°	595.8	595.8
177.5°	593.3	591.9
180°	591.9	591.9



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	3.25	4.03	4.30	5.09	6.53	16.38	17.17	17.43	18.23	19.67
	3H	3.95	4.65	5.01	5.72	7.17	18.20	18.91	19.26	19.98	21.43
	4H	4.24	4.91	5.31	5.98	7.44	18.83	19.50	19.91	20.57	22.04
	6H	4.49	5.10	5.57	6.18	7.65	19.25	19.87	20.33	20.94	22.41
	8H	4.55	5.14	5.64	6.23	7.70	19.36	19.95	20.45	21.04	22.51
	12H	4.57	5.13	5.66	6.21	7.70	19.42	19.98	20.51	21.06	22.55
4H	2H	10.43	11.10	11.51	12.17	13.63	16.65	17.32	17.73	18.39	19.85
	3H	11.99	12.55	13.08	13.65	15.12	18.67	19.23	19.76	20.33	21.81
	4H	12.08	12.60	13.17	13.68	15.18	19.43	19.94	20.52	21.03	22.53
	6H	12.09	12.53	13.19	13.64	15.13	19.95	20.39	21.05	21.50	22.99
	8H	12.06	12.48	13.16	13.58	15.09	20.10	20.52	21.20	21.62	23.12
	12H	12.02	12.39	13.13	13.51	15.02	20.18	20.56	21.30	21.68	23.19
8H	4H	13.51	13.92	14.61	15.03	16.53	19.48	19.90	20.58	21.00	22.50
	6H	13.75	14.09	14.87	15.24	16.74	20.10	20.44	21.22	21.58	23.08
	8H	13.77	14.07	14.89	15.19	16.71	20.31	20.61	21.44	21.73	23.25
	12H	13.73	13.99	14.86	15.12	16.68	20.44	20.70	21.57	21.83	23.38
12H	4H	13.65	14.02	14.76	15.14	16.65	19.43	19.81	20.55	20.92	22.43
	6H	14.00	14.30	15.13	15.43	16.95	20.08	20.38	21.21	21.50	23.03
	8H	14.07	14.33	15.20	15.45	17.01	20.30	20.56	21.43	21.68	23.24